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QUESTIONS AND ANSWERS

Q1 Is there a boiler and steam equipment sch? I do not see one in the spec or dwgs.

A1 Heating boiler specifications are noted in 23 52 00. Capacities and performance requirements are identified in item 2.1.13.

Q2 There are references in the mechanical specification to a Commissioning Authority. Is the General Contractor to carry the cost and hire one?

A2 It is not the intent of PWGSC to have a commissioning agent on this project. Refer to 23 05 00 item 1.30 for requirements of steam system 3rd party review. See also attached Addendum.

Q4 In regards to the drawings, I am looking for the boiler schedule. On drawing no. A2.00 is lists all the mechanical drawings.

A4 Heating boiler capacities are identified in 23 52 00, kitchen steam generators are specified in 23 52 01.

Q5 I have looked at the following: M0.02, M0.04, M0.06 and noticed there is no mention of boilers.

A5 Boiler specifications are found in 23 52 00 and 23 52 01.

Q6 If you could please advise on where I can find this information I would appreciate it. I just would like to know which manufacturers are required for the boilers.

A6 The specifications are performance based, no specific manufacturers have been listed as approved products.

Q7 I would like to request a proposal to a change to the operation of the Heat Exchanger. At present the Flooded Heat Exchanger is being supplied low pressure steam @ 85 KPa(10 psig) from a Pressure reducing station This design also requires a pressure powered pump on the outlet of the Heat Exchanger to lift the condensate against 300 KPa(42 psig back pressure). Seeing the in the specification Section 2.1 .14 requires the Heat exchanger skid package to be registered with TSSA, I would propose using the high pressure steam @ 700KPa (100 psig) this would eliminate the need for the Pressure reducing valve, safety relief valve, and eliminate the vent line off the SRV and all corresponding piping. It would also eliminate the requirement for the use a pressure powered pump and again eliminate the vent line off the pump. These changes would eliminate maintenance cost by eliminating equipment that is not required and would have substantial operation cost saving by eliminating the flash steam. We would recommend that the Isolation valve on the inlet of the heat exchanger be replaced by an electric on/off control valve to be used as a safety valve in case of a power failure. These changes will have no impact of the operation of the flooded heat exchanger, and will meet all performance requirements.

A7 The proposed system is an acceptable alternate. All piping would need to meet requirements of the higher operating pressure. Contractor will be responsible for related design costs and Shop Drawings (including changes to piping schematics and control sequences) will require acceptance by Departmental Representative

Q9 Can closing be extended at least a week?In bid documents you have start March 31 and completion Sept 3oth. We feel that is unattainable with major equipment deliveries and shop drawing turnaround. We feel that another 45 days would be required with provisions for final commissioning manuals ect for substantial completion?

A9 Contract completion to be 33 weeks.

Q10 The project deadline of 24 weeks is very aggressive considering the typical delivery times of boilers and field certifications (TSSA etc). can this substantial completion time be extended to a longer duration or perhaps a deadline of having 2 heating boiler installed and running for end of 2014

A10 Refer to Question 9 response.

Q11 The dimensions for the heating coil HC-CHP-1 is not given nor are the air flows, please provide.
A11 Refer to drawing schedule on M0.04

Q12 I cannot find and specs on the Blowdown tank with integrated heater BDT-CHP-1, please provide

A12 See attached addendum.

Q14 I cannot find any specs on the new main condensate tank identified on M1.27 CT-CHP-1, please provide

A14 Refer to specification section 23 20 13 - 2.19 Condensate Tank

Q15 Section 23 22 23 Part 2 , 2.1 Steam Condensate Pumps. With reference to the packaged condensate unit, it is not clear as to what you are looking for. The schedule and specification indicates the pumps to be controlled by the dearator. This is most unusual in that a condensate return pump is usually controlled by a float switch in the tank. Once the condensate tank is full, the float switch will energize the pump to send the condensate to the dearator. The storage tank of the dearator will work on a min/max water level between high water alarm and a minimum water level which will in turn energize the make-up water valve. If the dearator is left to control the condensate pump, then the condensate tank would occasionally overflow and waste condensate to sewer which in turn would require more makeup water at the dearator. The specification also calls for units to be suitable for 120 C. This seems excessive as the tank would have to be mounted about 10 feet to allow enough suction pressure to eliminate flashing of the condensate. Standard pump packages would be rated for 93° C to 99° C which would give us a two foot suction head at the pump inlet. How big of a receiver tank do they want.

A15 For this controls sequence please follow the specs. In the example above the condensate tank would fill the deaerator whenever the condensate tank was full, not when the deaerator was getting low. Depending on what condensate pumps elsewhere feeding into this system are pumping or storing this could shut down the system (potentially) if the condensate tank was not at high enough levels. The pump temperature is simply for a safety factor. There is no way to guarantee that 96C water, heated by the pump as it goes through, cannot reach higher than 99C so the safety factor will stand.